

Amendments to the Claims:

Please rewrite claims 12 - 14 in independent form as follows.

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (previously presented) An ultrasound probe comprising:
a transducer unit including a plurality of transducers for transmitting and receiving an ultrasound respectively located in correspondence with adjacent positions of transmission and reception; and
a flexible circuit board of at least one layer located in correspondence with said positions of transmission and reception, in which signal lines for supplying a transmission signal and for extracting a reception signal to/from said positions are installed;
wherein the flexible circuit board includes a first part which extends from the transducer unit in a longitudinal direction of the plurality of transducers and a second part which is connected to the first part and extends at predetermined angle with respect to the longitudinal direction extension of the first part so as to form a bend at the predetermined angle with respect to the first part; and
wherein the flexible circuit board has slits dividing signal lines of the flexible circuit board into a plurality of sections of the flexible circuit board, and each section of the flexible circuit board which is divided by at least one of the slits of the flexible circuit board is separately spirally wound.

2. (previously presented) An ultrasound probe according to claim 1, wherein a member is provided around each spirally wound section of the flexible circuit board.

3. (previously presented) An ultrasound probe according to claim 2, wherein said member is made of an insulating material covering the circumference of each section of the flexible circuit board, and a first shield material, or an insulating material to which a layer of metallic powder is evaporated, covers the circumference of each part.

4. (previously presented) An ultrasound probe according to claim 2, wherein said member is a single second shield material or a protection material covering an outer circumference of bundled sections of the flexible circuit board, or a protection material to which a layer of metallic powder is evaporated on its surface.

5. (previously presented) An ultrasound probe according to claim 3, wherein said member includes a single second shield material or a protection material covering the outer circumference of bundled sections of the flexible circuit board, or a protection material to which a layer of metallic powder is evaporated on its surface.

6. (previously presented) An ultrasound probe according to claim 4, wherein the protection material is in the form of a flexible tube.

7. (previously presented) An ultrasound probe according to claim 4 or claim 5, wherein the protection material covers the outer circumference of bundled sections of the flexible circuit board, which has a stiff section and a flexible section.

8. (previously presented) An ultrasound probe according to claim 3, wherein said member includes a single second shield material covering the outer circumference of bundled sections of the flexible circuit board and a protection material installed inside or outside the second shield material, or a protection material to which a layer of metallic powder is evaporated on its surface.

9. (previously presented) An ultrasound probe according to claim 2, wherein a signal line is provided on one layer of a two-layer flexible circuit board, and a ground line is provided on the other layer.

10. (previously presented) An ultrasound probe according to claim 1, wherein the ultrasound probe is an intracavitary ultrasound probe.

11. (currently amended) An ultrasound probe comprising:
a transducer unit including a plurality of transducers for transmitting and receiving an ultrasound; and
a flexible circuit board of at least one layer being connected with each of said transducers, in which signal lines for supplying a transmission signal and for extracting a reception signal to/from said plurality of transducers are installed;
wherein the flexible circuit board includes a first part which extends from the transducer unit in a longitudinal direction of the plurality of transducers and a second part which is connected to the first part and extends at predetermined angle with

respect to the longitudinal direction extension of the first part so as to form a bend at the predetermined angle with respect to the first part; and

wherein the flexible circuit board has slits dividing signal lines of the flexible circuit board into a plurality of sections, and each section of the flexible circuit board which is divided by at least one of the slits of the flexible circuit board is separately spirally wound.

12. (currently amended) An ultrasound probe ~~according to claim 1,~~
comprising:

a transducer unit including a plurality of transducers for transmitting and receiving an ultrasound respectively located in correspondence with adjacent positions of transmission and reception; and

a flexible circuit board of at least one layer located in correspondence with said positions of transmission and reception, in which signal lines for supplying a transmission signal and for extracting a reception signal to/from said positions are installed;

wherein the flexible circuit board includes a first part which extends from the transducer unit in a longitudinal direction of the plurality of transducers and a second part which is connected to the first part and extends at predetermined angle with respect to the longitudinal direction extension of the first part so as to form a bend at the predetermined angle with respect to the first part;

wherein the flexible circuit board has slits dividing signal lines of the flexible circuit board into a plurality of sections of the flexible circuit board, and each section of the flexible circuit board which is divided by at least one of the slits of the flexible circuit board is separately spirally wound; and

_____ wherein a length of the portions of the first part in the longitudinal direction gradually decrease as the portion becomes closer to an inner side of the bend.

13. (currently amended) An ultrasound probe ~~according to claim 11,~~
comprising:

_____ a transducer unit including a plurality of transducers for transmitting and receiving an ultrasound; and

_____ a flexible circuit board of at least one layer being connected with each of said transducers, in which signal lines for supplying a transmission signal and for extracting a reception signal to/from said plurality of transducers are installed;

_____ wherein the flexible circuit board includes a first part which extends from the transducer unit in a longitudinal direction of the plurality of transducers and a second part which is connected to the first part and extends at predetermined angle with respect to the longitudinal direction extension of the first part so as to form a bend at the predetermined angle with respect to the first part;

_____ wherein the flexible circuit board has slits dividing signal lines of the flexible circuit board into a plurality of sections, and each section of the flexible circuit board which is divided by at least one of the slits of the flexible circuit board is separately spirally wound; and

_____ wherein a length of the portions of the first part in the longitudinal direction gradually decrease as the portion becomes closer to an inner side of the bend.

14. (currently amended) An ultrasound probe ~~according to claim 11,~~ comprising:

_____ a transducer unit including a plurality of transducers for transmitting and receiving an ultrasound; and

a flexible circuit board of at least one layer being connected with each of said transducers, in which signal lines for supplying a transmission signal and for extracting a reception signal to/from said plurality of transducers are installed;

wherein the flexible circuit board includes a first part which extends from the transducer unit in a longitudinal direction of the plurality of transducers and a second part which is connected to the first part and extends at predetermined angle with respect to the longitudinal direction extension of the first part so as to form a bend at the predetermined angle with respect to the first part;

wherein the flexible circuit board has slits dividing signal lines of the flexible circuit board into a plurality of sections, and each section of the flexible circuit board which is divided by at least one of the slits of the flexible circuit board is separately spirally wound; and

wherein a member is provided around each spirally wound section of the flexible circuit board.